

Civil Engineering, Landscape Architecture, Survey, Planning & Program Management

> 710 W. Pinedale Avenue Fresno, CA 93711 Office: 559.447.3119 Toll-free: 1.800.473.1887

> > ceieng.com

March 18, 2022

Colorado Springs, CO – Stormwater Enterprise 30 S. Nevada Avenue, Suite 401 Colorado Springs, CO 80903

Re: Circle K Gas Station (1715 Monterey Rd) – Alternative Construction Control Measure

To Whom It May Concern,

Please find the attached submittal packet for the alternative construction control measure "Ertec Slot Guard" for the proposed Circle K development at 1715 Monterey Rd, Colorado Springs, CO. This alternative CCM will be utilized to protect the proposed trench drains during construction.

If any additional information is needed for review of the proposed alternative CCM, please let us know.

Sincerely,

Eric Lawrence, PE

Project Designer

Attachments

Alternative Construction Control Measure Packet - Ertec Slot Guard

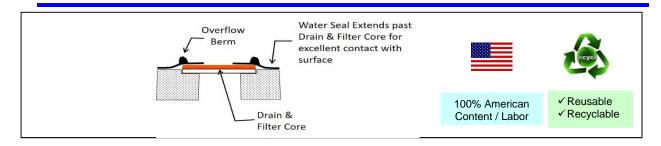


Slot Guard™

Trench/Slot Inlet Protection

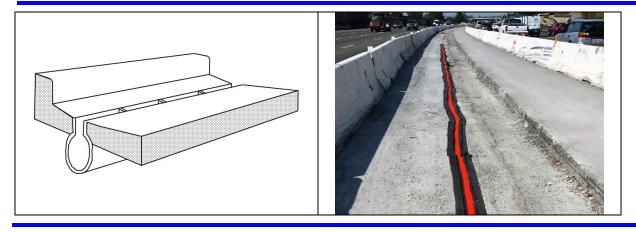
Slot Guard is a patent-pending, low cost system designed to keep sediment and debris out of slot or trench drain inlets in paved areas. Slot Guard is a better alternative to installing gravel bags on open slots during construction. The berm layer forces water to rise to at least one inch before reaching the filter causing heavier particles to settle. The system filters storm water above the

ground easing visual inspection and maintenance. The system has a high flow bypass designed to reduce the chance of back-ups. It is easy to fasten to the grate with zip ties, has a long life, is resistant to traffic, and reusable. During installation or cleaning, the grate does not need to be removed, reducing installer injuries.



Product Characteristics

| Module weight (average lbs. per sq. ft.) | 0.5 | Filter – min AOS (microns) | 600 |
|--|-----|--|-------------|
| Functional life (min years) | 4 | Tensile Yield ASTM D-638 (lb/in ²) | 1800 - 2800 |
| Reusable | YES | Ultimate Tensile Strength: ASTM D-638 (lb/in²) | 2000 - 2800 |
| Recycled Material Content (minimum) | 60% | Filter Flow Rate ASTM D-4491 gpm/ft ² (min) | 600 |
| Easy to clean | YES | Seals to pavement to control underflow | YES |



| Product Designation | Fits Grate Size: | |
|---|---|--|
| SG 84x06 | Slot or Trench Grates up to 6" wide | |
| SG 84x12 | Slot or Trench Grates up to 12" wide | |
| SG 84x15 | Slot or Trench Grates up to 15" wide | |
| SG 84x20 | SG 84x20 Slot or Trench Grates up to 20" wide | |
| Custom Sizes available – call for information or quotation. | | |

Product Benefits

- Fast installation
- Above street, easy to inspect & clean •
- Lower costs
- Long life, UV stable
- Durable semi-permanent
- One installation per project

Stands up to traffic

H29948 Updated: 04/17

ERTEC® Slot Guard™ - Installation Guide - For slotted or trench drain inlets with grates in paved areas

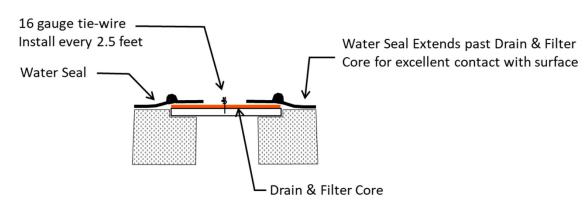
Installation Notes

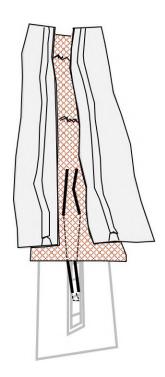
- **1. Placement**: Select correct size (Table 1). Lay the Slot Guard[™] on top of the slot or trench drain grate. For safety, assure that grate is in place. Do not remove grate.
- 2. Anchor method: Attach with 16 gauge tie wire every 2.5 linear Feet (Fig 1). Cut wire to 12" lengths. Feed one end of wire down thru Slot Guard™, around grate bar, and back-up thru Slot Guard™. Above ground, pull tight and twist wires several times. Cut off excess and bend twisted nub down
- **3. Overlap:** Slot Guard[™] segments overlap for long slot/trench drains.
- **4. Clean**: Accumulation of leaves, debris and sediment can cause backups! Clean after every storm or as necessary.
- **5. Protect**: In stop and go traffic areas where exposed to constant tire abuse, it is useful to place traffic cones or delineators on or near Slot Guard to discourage run-overs. Slot Guard™ works well with periodic run-overs, but does not survive long in constant stop and start traffic.

Table 1

| Slot/Trench | SG Size | | |
|---------------|----------|--|--|
| drains up to: | | | |
| 6" width | SG 84x06 | | |
| 12" width | SG 84x12 | | |
| 15" width | SG 84x15 | | |
| 20" width | SG 84x20 | | |

Fig. 1





Maintenance: Perform maintenance as required. Inspect following rainfall events and at least daily during prolonged rainfall. Maintain to provide an adequate sediment holding capacity. Debris shall be removed daily and sediment shall be removed when the sediment accumulation reaches 50% of the barrier height. Removed sediment shall be incorporated in the project at designated locations.

Important: All information, including illustrations, is believed to be reliable. Users, however, should independently evaluate the suitability of each product for their application. ERTEC Environmental Systems makes no warranties as to the accuracy or completeness of the information, and disclaims any liability regarding its use. ERTEC Environmental System's only obligations are those in the ERTEC Environmental Systems Standard Terms and Conditions of Sale for this product, and in no case will ERTEC Environmental Systems or its distributors be liable for any incidental, indirect or consequential damages arising from the sale, resale, use or misuse of the product. Specifications are subject to change without notice. In addition, ERTEC Environmental Systems reserves the right to make changes without notification to Buyer, to processing or materials which do not affect compliance with any applicable specification.



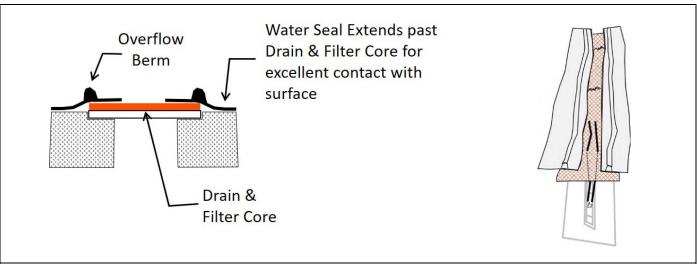
U.S. and International Patents and Pending Patents Apply ©2009-2018 ERTEC Environmental Systems

File Name

ERTEC – Installation Guide – Slot Guard.pdf

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| Scale: | Default Print Size: | Page: |
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SWPPP Binder Insert - Drain Inlet Protection ERTEC Slot Guard™



Definition - ERTEC Slot Guard™

A temporary or semi-permanent sediment and debris filter with a perimeter berm and filter designed to protect slot or trench drain inlets. Place device over the grate near where soil is disturbed.

Purpose

Slot/Trench drain inlet protection is used to intercept sediment laden water at the grate opening and prevent sediment and debris and associated pollutants from entering the storm water underground pipe systems. Slot Guard™ is a better alternative to installing gravel or sand bags on open slots and trenches during construction. The system reduces water velocity which causes heavier soil particles to fall out above ground. While allowing flow through the module, the barrier filters certain smaller sized particles from suspension and prevents them from flowing through the device and into the pipes. Advantages are that it is effective, durable, re-usable, easily installed, cleaned, and removed.

Conditions Where the Practice Applies

It is recommended for use over openings with small drainage areas. Generally, the drainage areas should be less than 1/3 acre and the total for inlets in series should be 1 acre or less with slopes flatter than 5 percent in the contributing drainage area.

Design Criteria

- Bypass: Slot Guard must provide a filter-free area for bypass of high flows.
- Perimeter Berm: Slot Guard must have at minimum a 1" perimeter berm.
- Module weight = 3 to 8 lbs. Unit height = 1.5". Width must be wider than slot opening.
- Service temperature (deg F) = -30 to 160.
- Choose correct size and place Slot Guard so that it covers the slot or trench drain. Anchor method: Tie Slot Guard to the slot drain with tie wire. Run tie wire thru the Slot Guard and down thru the slot drain opening and around the cross bars and back up thru the Slot Guard. Tie-off on top by twisting. Attach on 2.5' centers minimum.

Maintenance

Perform maintenance as required. Inspect following rainfall events and at least daily during prolonged rainfall. Clean periodically to provide an adequate sediment holding capacity. Debris shall be removed daily and sediment shall be removed when the sediment accumulation reaches 1 inch. Removed sediment and debris shall be incorporated in the project at designated locations or disposed-of outside the project or in conformance with requirements.



Slot Guard[™] ERTEC Environmental Systems <u>www.ertecsystems.com</u>

Toll Free: 866-521-0724